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ABSTRACT

This booklet briefly describes the military option in the area of technical training that has ramifications for subsequent employment in the civilian sector. It is written primarily for teachers, counselors, and students involved in either teaching or taking industrial and technical subjects that have occupational implications. Information is provided on reasons for considering the military training option, other sources of information about military skills training, and guidance and counseling. Specific information is presented on the Armed Services Vocational Aptitude Battery, the alternative training programs/pre-entry, and occupational training through the military system of instruction. The booklet then briefly describes selected training programs provided by the military. These training programs have applications in the civilian sector. For each occupational title (training program), this information is provided: branch of the services offering training, civilian opportunities available after separation, and immediate military opportunities. Representative titles are radio equipment repairers, power plant electricians, electrical products repairers, marine engine mechanics, heating and cooling mechanics, occupational therapy specialists, physical therapy specialists, computer programmers, corrections specialists, and court reporters. (YLB)

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OCCUPATIONAL TRAINING PROVIDED BY THE MILITARY– A VIABLE OPTION

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OCCUPATIONAL TRAINING PROVIDED BY THE MILITARY - A VIABLE OPTION

1988

STATE BOARD FOR VOCATIONAL EDUCATION

OFFICE OF THE STATE DIRECTOR FOR VOCATIONAL EDUCATION

This report was prepared by Dr. William Broadbent.

Preface

This booklet is written primarily for teachers, counselors, and students involved in either teaching or taking industrial and technical subjects that have occupational implications. It is not designed to be a primary source of reference. Rather, it is designed to provide a brief sketch of the military option that exists in the area of technical training that has ramifications for subsequent employment in the civilian sector.

It is an invitation to those so inclined to look further into the subject. Its brevity and organization facilitate rapid reading. Hopefully, it covers most of the important bases for someone that does not have an extensive grounding in the subject as yet.

If the option described herein does not seem relevant to a given student's training preferences and life style predisposition, the alternative to civilian training can be expediently set aside. However, for the student who is unaware of this option which exists for the rapid acquisition of skills in a high-technology area or a unique occupation, it may inspire further exploration of the subject.

Teachers may also wish to compare the pace and intensity of their programs of instruction with those employed by the military. The environment and conditions in which military skills training take place are certainly different from that of the normal high school or community college. But, perhaps, there is something to be learned from the military.

Introduction and Overview

This booklet was prepared for persons having a possible interest in technical training programs offered by the military branches. It is not a promotional pamphlet, graphically illustrating the more desirable aspects of military service, nor is it a comprehensive annotated listing of all training programs offered by the services. It is an abbreviated discussion of some of the various subjects that a student might find of interest in making a decision about technical training after high school. It also has material that might be useful to teachers who are contemplating changes in their teaching strategies or are involved in assisting students in making career decisions. There is also some incidental information provided which may be of general interest.

The rationale for using a military program to train for an occupation in civilian life essentially involves the fact that the military usually uses state-of-the-art equipment for training. It also offers some unique programs not available by the public, civilian sector and is less costly to the student. It provides skills acquisition that is expedient and to the point.

Before a person can seriously consider the military training option, he or she must take the Armed Services Vocational Aptitude Battery (ASVAB). This test is explained. The basic "in-depth" sources of information are also discussed. A person having taken the ASVAB and consulted information in depth about existing programs might wish to solicit guidance from school counselors, teachers, recruiters, and/or military educational specialists to be sure that he or she meets the requirements for induction and participation in special skills training programs. These matters are also discussed.

One state is experimenting with a program that allows high school students and their teachers exposure to military training before the student leaves high school. This North Carolina program is briefly explained.

Anyone who would like to know how military training differs from civilian postsecondary training will want a general idea of the similarities and differences. This is also briefly covered.

A representative sample of "high-tech" and "unique" military training programs is listed with some relevant information about each.

Acknowledgments

Persons having knowledge of the training programs from all services provided information and written materials for the preparation of this booklet. Both civilian employees and military personnel of the various recruiting and training commands were consulted. The efforts of all persons are appreciated. However, several individuals went to unusual efforts to be helpful and need particular recognition. They were:

Dr. Lucius Butler
Educational Specialist
U.S. Navy

Raymond Kautzman
Education Coordinator
Army Recruiting Battalion

Lieutenant James Motes-Conners
Commander
U.S. Navy Recruiting Command

Senior Chief Ben Herden
Naval Submarine Training Center, Pacific
U.S. Navy

Lieutenant Colonel Kurt Pierce
Recruiting Battalion Commander
U.S. Army Recruiting Command

Barbara Thompson
Educational Specialist
U.S. Navy Recruiting Command

Senior Chief Catalino Valdez
Naval Submarine Training Center, Pacific
U.S. Navy

Again, the efforts of these and numerous other individuals who located materials and provided information are appreciated.

Reasons for Considering the Military Training Option

There are three basic reasons for examining the option of obtaining technical and other job training through the auspices of the Armed Forces: (1) access to state-of-the-art equipment or high-technology, (2) the availability of programs not offered in the civilian sector because of economic factors, and (3) personal financial considerations.

State-of-the-Art Equipment in High Technology Areas

With the incredible advances in technology in the last two decades, vocational/technical education has become more critical than ever to achieve career satisfaction and success. Unfortunately, these programs are more expensive. The State of Hawaii, like other states, has attempted to keep abreast of these changes by employing and retraining fine teachers and purchasing the most modern equipment. However, the resources of this State and others are limited. The high schools and community colleges cannot, realistically, keep up in highly technical fields on an ongoing basis.

The military establishment must, because of reasons of national security, make use of the highest levels of technology in such areas as computer technology, electronics and communications. Some students may wish to consider the military as an alternative to achieve the skill levels necessary to make a good living in civilian life or consider the military as a permanent vocation in itself.

Availability of Programs Not Readily Offered by the Civilian Sector

Several years ago, one community college in Hawaii attempted to offer programs in Marine Technology and Diving Technology. Given the fact that the State is composed of islands surrounded by the Pacific Ocean, it seemed to make sense. Such programs appeared to be well suited to the immediate environment. However, both programs had to be "stopped out." The cost of the necessary deep water, "ship time" proved prohibitive for Marine Technology. The Marine Diving program attracted only about four students each semester and was not cost effective.

The Navy has all of the resources for providing ship time. It also can afford to consolidate Marine Diving instruction for students interested in this field throughout the entire United States and achieve cost effectiveness. There are many other examples as well.

Financial and Economic Considerations

Although tuition at Hawaii's public community colleges is nominal, those in attendance must bear the costs of room, board, and personal expenses. The great majority of students in Hawaii community colleges have part-time or full-time jobs. Most manage fairly well combining school with a job. For others, this arrangement produces a strain. Both school and work may suffer. The military, on the other hand, pays you to train.

Most skilled jobs in the civilian sector require training prior to job entry. The military services do not. You need only demonstrate the innate ability to achieve the skill desired.

Other Sources of Information About Military Skills Training

As previously mentioned, this is not a recruiting pamphlet and is not produced by the Department of Defense. It is simply designed to acquaint prospective graduates of high schools and those attending community colleges with some of the technical and unique training programs available through the various branches of the service.

Occupational Outlook Handbook. This book is in many libraries, career centers and guidance offices. The Handbook tells interested students many things about occupations such as: nature of the work, working conditions, employment (number and location of jobs), training, other qualifications and advancement, employment outlook, earnings, related occupations, and sources of additional information.

Military Career Guide. This book is also in most career centers, guidance offices, and military recruiting offices. The Guide tells those interested many facts about each officer and enlisted military occupations such as: activities, helpful attributes for entering the occupation, work environment, special qualifications, training that is provided, civilian counterparts, opportunities, ASVAB occupational clusters, and percentage of people with aptitude qualifications for one or more specialties in the occupation.

Guidance and Counseling

Information in reasonable but greater detail can be obtained through your school or college counselor, a service recruiter or a military training coordinator. The names and assignments of the two latter categories of resource personnel change because of reassignment and rotations and are not included. However, ready reference can be obtained through the telephone book under the heading "United States Government." Students will also know where to find their high school or college counselor.

Most counselors at the secondary and postsecondary levels have been provided materials about skills training by the various military services. Like in every area of endeavor, there is a tendency to be selective in the subject any given professional finds most interesting. Some counselors are primarily concerned with four-year college programs and others in occupational placement. It is not intentional, but not all counselors become highly knowledgable about military/technical training programs.

A military recruiter probably has the most current information. However, remember they are paid to recruit. While they may be very informative about the military services skills training program, they will also attempt, understandably, to get an inquisitive student to enlist. A student should get all the information first before he or she makes any decision. Civilian test specialists, educational specialists, and education coordinators for the

Department of Defense, and some of the respective services are also available to assist students. Some services can guarantee you skills training in your preferred field, others cannot. Again, it is important for a student to get all the information first.

Armed Services Vocational Aptitude Battery (ASVAB)

As previously mentioned, a student who is seriously interested in exploring the military option to skills training, needs to take a diagnostic test to demonstrate his or her potential for completing a given skills training successfully. This involves taking the Armed Services Vocational Aptitude Battery (ASVAB).

This test was first offered at no cost and with no obligation to students by the Department of Defense in 1966. The schools also bear no cost. In 1985-86, approximately 1 million students in 15,000 schools took the ASVAB.

To assist people in using their ASVAB scores for career exploration purposes, the Department of Defense provides the ASVAB Workbook. Designed to be interactive, the workbook motivates students to become involved in interpreting their ASVAB scores and completing exercises and charts that help them determine their values, interests, skills and educational goals while they think about the features they want most in an occupation and career.

There use to be a time when the military would enlist just about anyone. However, that was a time when the army's fast transportation was by horse, the ships of the naval forces had sails, and there wasn't any air force. Today a high school diploma and demonstrated aptitude for skills training is a must. You would not want to trust a million-dollar piece of equipment to an inept person. The services need skilled people to operate and maintain their sophisticated technology and perform other skilled tasks. They are willing to train the capable and motivated.

Alternative Training Programs/Pre-entry

Some states have a joint Army partnership training for students who seek specialized training prior to their entry into the military but which will be valuable should they choose re-entry into the civilian work force after their participation in the military service. One exemplary program has been developed by the North Carolina Division of Vocational Education in cooperation with the Army. The program is in electronics. The program is called Project Transition.

The North Carolina program involves instructor and student training in career awareness and curriculum development in technical fields. Curriculum materials and equipment have been donated by the Army in conjuction with the program. High school electronics instructors' training includes state-of-the art technology and curricula that have been developed in the areas of communications and electronics. High school students and their teachers have an opportunity to spend time on a military base in an awareness training session.

Students who enter the military after high school must meet many or all of the prerequisites for specific training. If they do not enter the military, but a good number do, they are prepared better to enter the civilian job market or to continue their education at the postsecondary level.

An individual plan is written for each student, and they may be intensively involved at the military site for up to two weeks.

Access to state-of-the-art curricula, equipment and training has improved the delivery of competencies to students and also resulted in many new competencies being developed. This innovative program provided by the Army correlates jobs in the military with those in the civilian sector. School systems provide travel and subsistence for the teachers and students. The jobs described briefly in the latter part of this booklet have military applications that are very similar.

Occupational Training Through the Military System of Instruction

The student needs to know how military skills training differs from that offered by Hawaii Community Colleges. The end is the same but has a difference in philosophy and approach.

A good deal of the occupational training offered at the postsecondary level in the United States is provided by community or junior colleges. Other educational opportunities having direct occupational training implications are provided by the Job Training Partnership Act (JTPA); Job Corps; Employment Training Offices; and, in some instances, the Adult Education programs supported by secondary school districts and proprietary schools. Persons having special needs may be accommodated by the Department of Vocational Rehabilitation and community-based organizations. Other organizations are also involved.

The "Open-Door" Policy

Many community/junior colleges operate on what is termed an "open-door" policy and a "generalist" philosophy. In Hawaii, the open-door policy essentially means that any student who is 18 years or older has the right to be admitted. He or she may not be a high school graduate. The college may require that such a student take remedial courses in language arts and/or mathematics if diagnostic tests reveal deficiencies in these areas. The modern military does not have the time to teach such basic subjects which most educators feel should have been mastered in the elementary or secondary grades. However, most people agree that, at least in the civilian sector, recent immigrants or persons with bonafied learning disabilities should be availed of the opportunity to bring their basic skills up to a point where they can benefit from, what are often demanding vocational/technical training curricula.

The military services, for the most part, do not have the time for such remedial training in "basics." The initial enlistment for a person in the Navy, for instance, may range from four to six years if a skilled job placement is requested. If most applicants were to take a year of remedial/developmental

training plus an additional two years for skills training, there would be very little time for the particular service to obtain a reasonable return on its investment.

The "Generalist" Philosophy

For similar reasons, many military branches can neither afford the luxury of, what some would term, a "generalist" approach to education. Some educators in the community/junior college field believe that a candidate for a degree in a vocational/technical specialty should also avail himself or herself of a "balanced education." Such an educational strategy involves further exposure to the liberal arts. In the view of a large number of educational coordinators in the services, a prospective candidate for induction into a skilled position in the service should have already gained an adequate mastery of such subjects as literature, English, history and general mathematics in the first 12 or 13 years of her or his education. Time is of the essence. Thus, liberal arts is usually not a part of the skills training curriculum. However, the Air Force does offer a community college degree which incorporates many of the features of a "generalist" approach. Other services occasionally allow enlisted men to attend community college during their off hours.

In the military, attention is directed at the mastery of specific skills. Precise, measurable objectives are specified for each component of instruction and definitive timelines are specified for their mastery. For instance, in today's Army and Marine Corps, three out of every four recruits will be needed to provide the technical support for every designated combatant. A recruit will need to learn his or her technical specialty at a reasonable but relatively quick pace. Those who show special promise will eventually be expected to learn to teach others, and perhaps, to even assist in the development of the curriculum. With appropriate attentiveness and effort, the acquisition of a valuable technical skill can, in fact, be attained in a relatively short time. Such skill acquisition usually takes substantially longer in the civilian sector.

The Military Training Schools

Many of those reading this document will be familiar with the concept of "total immersion." Frequently this technique is used in some foreign language programs. In a program such as French instruction, the participant is immersed in a totally French language environment. Little or no English is used. A student is expected to use his or her wit and will to comprehend that which is being said and/or going on. Very little theoretical discussion of "conjugations," "declensions," or "subjectives" takes place. The individual simply has to observe, listen, and imitate that which is appropriate in order to survive.

The military system of instruction does not exactly duplicate this situation but does bear certain resemblances. The participant is in, what educators would call, a "controlled" environment. The classes are often 8:00 a.m. to 5:00 p.m., and there is frequent testing. If the learning objective has not been achieved by 5:00 p.m., the class may go on until the instructor is satisfied. There is also homework. It is intense, and the progress of the participant is closely monitored. Little attention is paid to the "affective domain" or, to put it in other words, attitude development. If the participant

does not have the appropriate attitudes on entry to the military, or if he or she does not acquire these attitudes during "basic training," their tenure with the service may be brief and dissatisfying to all involved.

The Navy As One Example

Space precludes a discussion of the training schools of all services. However, all bear strong similarities. A brief overview of the Navy's program will provide some insights. In the Navy, the instructional program is prescribed in a most precise manner. The instructional guides and materials are provided by the Commander Naval Technical Training. This command is staffed by educational and technical specialists. These two groups work together to achieve the most relevant scope and sequence designs and curriculum guides. Any given curriculum prescribes precise objectives, timelines for reaching these objectives, and measures for determining the realization of these objectives. Although the military intensifies instruction to minimize the amount of time the individual is absent from day-to-day operations, some services report that as much as 50 percent of the time for selected recruits is spent in training during their inital enlistment.

Nevertheless, and as previously mentioned, the acquisition of skills by civilian standards can be remarkably brief. Basic electronics is taught in four weeks, a diesel technician takes a program that last about nine weeks, and technical training for persons who operate nuclear reactors on submarines, that may cost over $1 billion, takes two and one-half years.

A student who had shown promise but who is not doing well in school, is referred to the Academic Review Board. If there are personal problems or other relevant extenuating circumstances, the individual is given a second chance. The progress of each participant is recorded on his or her Personnel Performance Profile.

Technical training takes place in "C" schools. "A" is the designation used to describe general or basic training. "B" schools were designated for intermediate level training but they have generally been phased out. In terms of training, there are actually 18 different navies each addressing a different skill specialty.

Once training has been completed and the individual is assigned to a job, the participant will be supervised carefully by an experienced peer. His or her performance will also be monitored closely by senior members in the command. If a novice is observed turning the wrong valve on a nuclear powered submarine on only one occasion, he will find himself assigned to other duties probably on a surface ship or on land.

Teacher Training

The instructors, for the most part, are enlisted personnel. They have usually been in the service for six years or more and have established themselves as highly competent technicians. To train as instructors in the Navy, the individual goes through a four-week course to learn how to teach

their skill to others. The time allotted for such training may vary by service. The instructors are provided with three to four years of service in a location in which they may express a preference. It is considered a highly desirable posting.

The instructors are given a guide which precisely defines the scope, sequence, and objectives of each learning component. They are directed to teach only those skills that participants need to know. If the individual's assignment is changed, his or her preparation will be accommodated with further training.

It is not a skills/knowledge training program to which everyone can adjust. However, for many it provides an expedient avenue to the rapid acquistion of technical know-how that may serve them well through continued enlistment or in the transition to an excellent job opportunity in civilian life.

Summary

This brief booklet was designed to facilitate the exploration of one alternative to traditional vocational/technical training. The military services offer a broad range of training programs. In the interest of national security, they avail themselves of the most modern equipment in such technical areas as electronics and data processing. The civilian sector has some trouble keeping abreast of "state-of-the-art" developments in all areas. Community/junior colleges have also experienced difficulty funding a full range of programs. Many programs like Marine Technology have been discontinued because of cost considerations.

A student's ability to pursue successfully a given program of study is assessed by the Armed Services Vocational Aptitude Battery (ASVAB). This is given free of charge during high school. It may be administered by a recruiter. The test results make it easier to ensure that a prospective recruit is placed in a technical or specialty field where he or she has a high probability for success.

Some states have a joint Army partnership training program for students and teachers. Students and faculty actually live on base and are exposed to the newest technology during the regular school year.

Military training is more intense and specialized. The trainee's environment is controlled. There are no distractions. This greatly expedites the time necessary for skills acquisitions. Objectives are overt and rigid timelines imposed. As previously mentioned, the military technical training option is one that is not for everyone but is ideal for many.

Abbreviated List of Selected Training Programs Provided by the Military*

The jobs described briefly in the following have military training programs which have applications in the civilian sector. It is by no means comprehensive nor does it provide complete information about the occupation. Those selected for inclusion in this "sampler" were included because they either involve high technology, offer training that is unique and not readily available from civilian educational institutions in Hawaii, and/or represent areas in which the civilian sector has been unable to meet the demand.

Radio Equipment Repairers

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian radio equipment repairers often work for firms that design and make air and space, communications, and electronic equipment. They may also work for the federal government. They may be called "radio repairers," "radio mechanics," or "radio electricians."

Immediate Military Opportunities

The services have about 50,000 radio equipment repairers. On average, the services need about 5,900 new repairers each year. After job training, repairers are assigned to a radio maintenance unit and perform routine maintenance and repair jobs under supervision.

Ship Electricians

Services Offering Training

Navy
Coast Guard

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*Primary source: Military Career Guide, Washington, D.C., Department of Defense, circa 1985.

Civilian Opportunities Available After Separation

Civilian ship electricians work for shipbuilding and dry dock firms and shipping lines. Other civilian electricians, such as building electricians and electrical products repairers, also perform similar work. Civilian nuclear power plant electricians perform duties similar to ship electricians who work with nuclear plants on ships and submarines.

Immediate Military Opportunities

The military has about 4,080 ship electricians. On average, the services need about 410 new ship electricians each year. After job training, ship electricians perform maintenance work and repair electrical problems.

Precision Instrument Repairers

Services Offering Training

Army
Navy
Air Force
Marine Corps

Civilian Opportunities Available After Separation

Civilian precision instruments repairers work for firms that manufacture or use precision instruments. These include manufacturing firms, airlines, machinery repair shops, maintenance shops, and instrument makers. They may also be called "instrument mechanics" or "calibration specialists."

Immediate Military Opportunities

The services have about 8,900 precision instrument repairers. On average, they need 1,050 new precision instrument repairers each year. After job training, precision instrument repairers calibrate instruments.

Power Plant Electricians

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian power plant electricians often work for construction companies, manufacturers, and utility companies.

Immediate Military Opportunities

The services have about 1,330 power plant electricians. On average, they need about 210 new power plant electricians each year. After job training, power plant electricians perform routine maintenance.

Electronic Instrument Repairers

Services Offering Training

Army
Navy
Air Force
Marine Corps

Civilian Opportunities Available After Separation

Most civilian electronic instrument repairers work for manufacturing, medical research, and satellite communications firms, or commercial airlines. They may also work for government agencies, such as the Federal Aviation Administration (FAA), the National Aeronautics and Space Administration (NASA), or the National Weather Service. Their positions are described as "electronics mechanics," and "dental equipment repairers," or "biomedical equipment technicians," depending on their specialty.

Immediate Military Opportunities

The services have about 17,100 electronic instrument repairers. On average, they need about 1,980 new repairers each year. After job training, they are assigned to an operations or equipment maintenance unit. They perform routine maintenance and repair.

Electrical Products Repairers

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian electrical products repairers work in many industries including hospitals, manufacturing firms, and governmental agencies. They also work in independent repair shops. They may be called "electric tool repairers," "electrical instrument repairers," "electromedical equipment repairers," or "electric motor repairers."

Immediate Military Opportunities

The military has about 8,560 electrical products repairers. On average, the services need about 860 new repairers each year. After job training, they normally make repairs with the assistance of experienced specialists.

Photographic Equipment Repairers

Services Offering Training

Army
Navy
Air Force
Marine Corps

Civilian Opportunities Available After Separation

Civilian photographic equipment repairers work for photographic laboratories, engineering firms, and government agencies. Depending on specialty, they may also be called "camera repairers," "motion picture equipment machinists," or "photographic equipment technicians."

Immediate Military Opportunities

The services have about 4,050 photographic equipment repairers. On average, they need about 420 new photographic equipment repairers each year. After job training, photographic equipment repairers make adjustments and repairs with the help of experienced technicians.

Data Processing Equipment Repairers

Services Offering Training

Army
Navy
Air Force
Marine Corps

Civilian Opportunities Available After Separation

Civilian data processing equipment repairers work for computer manufacturers, repair services, and other businesses with large computer facilities. They may also be called "computer service technicians."

Immediate Military Opportunities

The services have about 8,200 data processing equipment repairers. On average, they need about 820 new equipment repairers each year. After job training, repairers are assigned to maintenance units or data processing centers. They perform routine maintenance and repair jobs.

Aircraft Electricians

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian aircraft electricians work primarily for airlines and aircraft maintenance firms. They may also work for aircraft manufacturers and organizations that have fleets of airplanes or helicopters.

Immediate Military Opportunities

The military has about 11,100 aircraft electricians. On average, the services need about 1,320 new aircraft electricians each year. After job training, aircraft electricians perform maintenance and routine repairs.

Marine Engine Mechanics

Services Offering Training

Army
Navy
Air Force
Coast Guard

Civilian Opportunities Available After Separation

Civilian marine engine mechanics work in many industries including marine transportation, commercial fishing, and oil exploration and drilling.

Immediate Military Opportunities

The military has about 11,900 marine engine mechanics. On average, the services need about 1,550 new mechanics each year. After job training, they work in repair centers or shipboard engine rooms.

Heating and Cooling Mechanics

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian heating and cooling mechanics work for contractors that install home furnaces and air conditioners or firms that repair refrigerators and freezers in homes, grocery stores, factories, and warehouses. Heating and cooling mechanics in civilian life often specialize more than those in the military. They may be called "heating," "air conditioning," "refrigeration," or "climate control mechanics."

Immediate Military Opportunities

The military has about 10,100 heating and cooling mechanics. On average, the services need about 1,010 new mechanics each year. After job training, mechanics maintain and repair equipment.

Divers

Services Offering Training

Army
Navy
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian divers work for oil companies, salvage companies, underwater construction firms, and police or fire rescue units.

Immediate Military Opportunities

The services have about 3,100 divers. On average, they need about 600 new divers each year. After job training, divers work in teams headed by experienced divers.

Aircraft Mechanics

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian aircraft mechanics work for aircraft manufacturers, commercial airlines, and government agencies. They may also be called "airframe" or "powerplant mechanics."

Immediate Military Opportunities

The services have about 142,500 aircraft mechanics. On average, they need about 16,100 new mechanics each year. After job training, mechanics are assigned to an aircraft maintenance unit, where they perform routine maintenance and repair jobs.

Boiler Technicians

Services Offering Programs

Navy
Coast Guard

Civilian Opportunities Available After Separation

Civilian boiler technicians, called boilermakers, work for shiplines, boiler repair shops, or factories. Boiler technicians also build and install boilers, as well as operate and repair them. Besides shipping, boilers are used in buildings and factories for steam heat and power.

Immediate Military Opportunities

The services have about 4,670 boiler technicians. On average, they need about 500 new boiler technicians each year. After job training, boiler technicians are assigned to ships where they operate boilers.

Power Plant Operators

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian power plant operators work for power companies, factories, schools, and hospitals. Depending on their specialty, power plant operators may also be called "boiler operators," "stationary engineers," "nuclear reactor operators," or "diesel plant operators."

Immediate Military Opportunities

The services have about 20,700 power plant operators. On average, they need about 2,070 new power plant operators each year.

Boat Operators

Services Offering Training

Army
Navy
Air Force
Coast Guard

Civilian Opportunities Available After Separation

Civilian boat operators may work for water transportation and towing companies piloting tugboats, ferries, and other small vessels. Depending on specialty, they may also be called "tugboat captains" or "motorboat operators."

Immediate Military Opportunities

The services have about 1,850 boat operators. On average, they need about 190 new boat operators each year. After job training, new boat operators assist experienced operators.

Orthopedic Technicians

Services Offering Training

Army
Navy
Air Force

Civilian Opportunities Available After Separation

Civilian orthopedic technicians work in hospitals and clinics. They are also known as "orthopedic physician assistants" or "orthopedic assistants."

Immediate Military Opportunities

The services have about 470 orthopedic technicians. On average, they need 60 new technicians each year. After job training, new technicians make splints and casts.

Occupational Therapy Specialists

Services Offering Training

Army
Navy
Air Force
Coast Guard

Civilian Opportunities Available After Separation

Civilian occupational therapy specialists work for hospitals, schools, rehabilitation centers, and community mental health centers. Civilian occupational therapy specialists tend to specialize in the type of patients they serve, such as children, amputees, or the elderly. Their technical positions are usually described as "occupational therapy assistants" or "occupational therapy aides."

Immediate Military Opportunities

The military has about 200 occupational therapy specialists. On average, the services need about 30 new specialists each year. After job training, occupational therapy specialists provide routine therapy care, such as operating whirlpool equipment.

Physical Therapy Specialists

Services Offering Training

Army
Navy
Air Force
Coast Guard

Civilian Opportunities Available After Separation

Civilian physical therapy specialists work for hospitals, nursing homes, and rehabilitation clinics. Civilian physical therapy specialists usually specialize in the type of patient they work with, such as children, the severely disabled, or the elderly.

Immediate Military Opportunities

The services have about 680 physical therapy specialists. On average, they need about 85 new specialists each year. After job training, physical therapy specialists work under the direction of physical therapists or more experienced specialists.

Air Traffic Controllers

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian air traffic controllers work for the Federal Aviation Agency (FAA) in airports and control centers around the country. They may specialize in specific areas, such as aircraft arrival, departure, ground control, or en route flights.

Immediate Military Opportunities

The services have about 11,800 air traffic controllers. On average, they need 1,230 new controllers each year. After job training, new controllers normally perform duties such as ground control.

Computer Programmers

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian computer programmers work for such organizations as manufacturing firms, banks, data processing organizations, government agencies, and insurance companies. These employers handle large amounts of information that programmers help organize for convenient use.

Immediate Military Opportunities

The military has about 3,150 computer programmers. On average, the services need about 480 new programmers each year. After job training, programmers are assigned to data processing units. Programmers may work alone or with systems analysts and computer operators.

Computer Systems Analysts

Services Offering Training

Army
Navy
Air Force
Marine Corps

Civilian Opportunities Available After Separation

Civilians in this field work for a wide variety of employers, such as banks, insurance companies, hospitals, large retailers, research firms, manufacturers, or government agencies. They are called "systems analysts," "systems programmers," and "programmer/analysts."

Immediate Military Opportunities

The services have about 2,110 computer systems analysts. On average, they need about 220 new systems analysts each year. After job training, new analysts work under the direction of experienced analysts. They may work alone on individual projects, but usually they work with other analysts and programmers as part of a team.

Fuel and Chemical Laboratory Technicians

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian laboratory technicians work for petroleum refineries, chemical companies, manufacturing firms, and government agencies. Civilian laboratory technicians specialize in particular industries, such as petroleum, food processing, or medical drugs. Terms used to describe their job responsibilities are "chemical laboratory technician" or "laboratory tester."

Immediate Military Opportunities

The services have about 4,420 fuel and chemical laboratory technicians. On average, they need about 670 new technicians each year. After job training, technicians work in testing laboratories.

Corrections Specialists

Services Offering Training

Army
Navy
Marine Corps

Civilian Opportunities Available After Separation

Civilian corrections specialists work in city and county jails, federal and state prisons, reformatories, and other correctional facilities. The positions they occupy are as "guards," "correction officers," or "deputy guards."

Immediate Military Opportunities

The military has about 2,850 corrections specialists. On average, the services need about 360 new specialists each year. After job training, specialists are assigned to correctional facilities.

Maintenance Data Analysts

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian maintenance data analysts work for government agencies, airlines, and large transportation firms. They also work for firms with large numbers of machines.

Immediate Military Opportunities

The services have about 11,100 maintenance data analysts. On average, they need 1,280 new analysts each year.

Flight Operations Specialists

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian flight operations specialists work for commercial and private airlines and air transport companies.

Immediate Military Opportunities

The services have about 5,700 flight operations specialists. On average, they need about 570 new specialists each year. After training, new specialists keep logs and type schedules.

Court Reporters

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian court reporters often work for government agencies, law firms, or local, state, and federal courts and legislatures. They may be called "court clerks" or "court recorders."

Immediate Military Opportunities

The services have about 600 court reporters. On average, they need about 60 new reporters each year. After job training, court reporters are assigned to legal offices.

Surveying Technicians

Services Offering Training

Army
Navy
Air Force
Marine Corps
Coast Guard

Civilian Opportunities Available After Separation

Civilian surveying technicians work for construction, engineering, and architectural firms. They also work for petroleum and mining companies and government agencies.

Immediate Military Opportunities

The services have about 4,740 surveying technicians. On average, they need about 750 new technicians each year. After job training, surveying technicians perform basic survey duties, and with experience they progress to more difficult tasks.